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FIG. 1

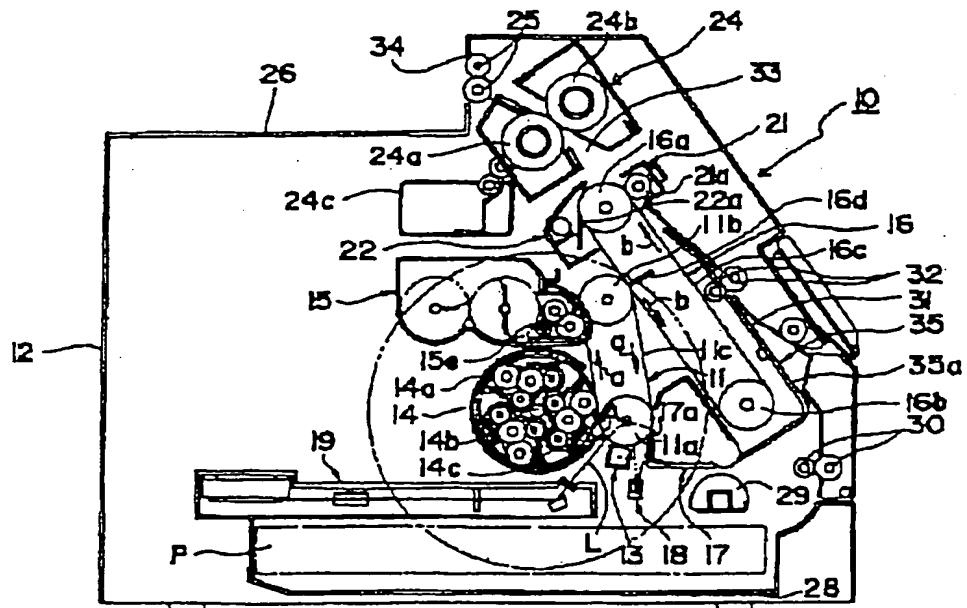


FIG.2

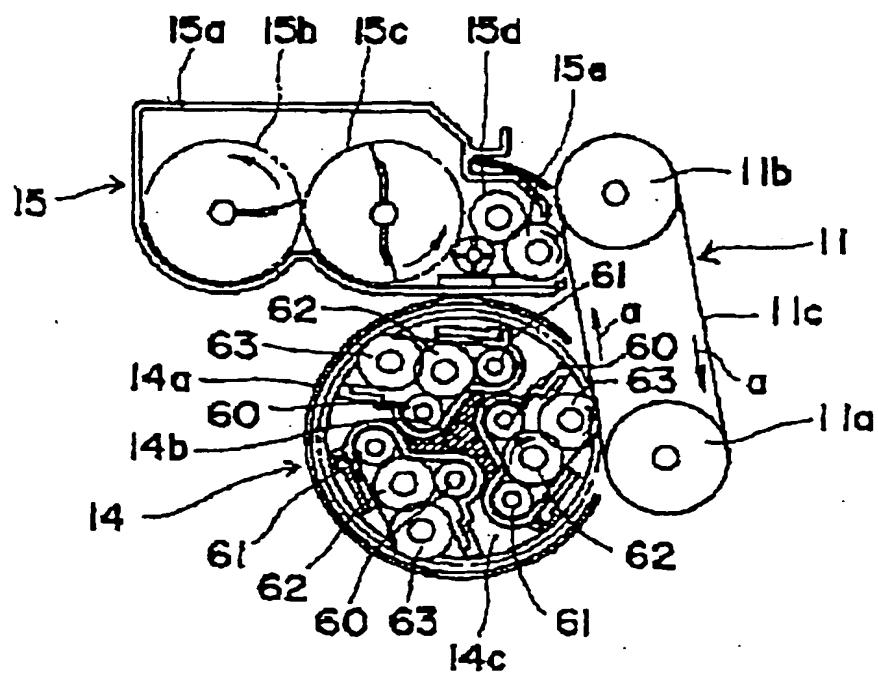
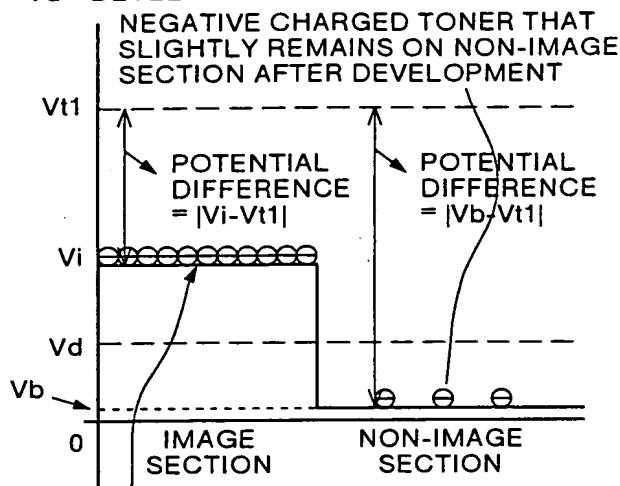


FIG.3A

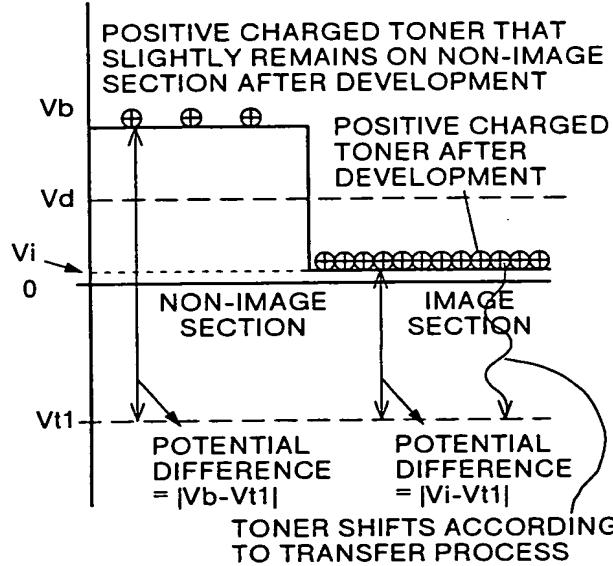
V_b : SURFACE POTENTIAL OF NON-IMAGE SECTION OF PHOTO SENSOR
V_i : SURFACE POTENTIAL OF IMAGE SECTION OF PHOTO SENSOR
V_{t1} : SURFACE POTENTIAL OF INTERMEDIATE TRANSFER UNIT
V_d : DEVELOPING BIAS POTENTIAL



IN THE INSTANCE OF NORMAL DEVELOPMENT OF NEGATIVE CHARGED TONER WHEN PHOTO SENSOR IS CHARGED IN POSITIVE

FIG.3C

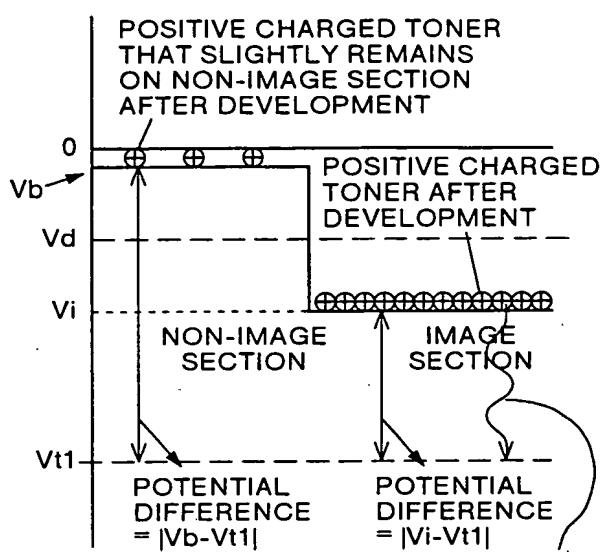
V_b : SURFACE POTENTIAL OF NON-IMAGE SECTION OF PHOTO SENSOR
V_i : SURFACE POTENTIAL OF IMAGE SECTION OF PHOTO SENSOR
V_{t1} : SURFACE POTENTIAL OF INTERMEDIATE TRANSFER UNIT
V_d : DEVELOPING BIAS POTENTIAL



IN THE INSTANCE OF INVERSE DEVELOPMENT OF POSITIVE CHARGED TONER WHEN PHOTO SENSOR IS CHARGED IN POSITIVE

FIG.3B

V_b : SURFACE POTENTIAL OF NON-IMAGE SECTION OF PHOTO SENSOR
V_i : SURFACE POTENTIAL OF IMAGE SECTION OF PHOTO SENSOR
V_{t1} : SURFACE POTENTIAL OF INTERMEDIATE TRANSFER UNIT
V_d : DEVELOPING BIAS POTENTIAL

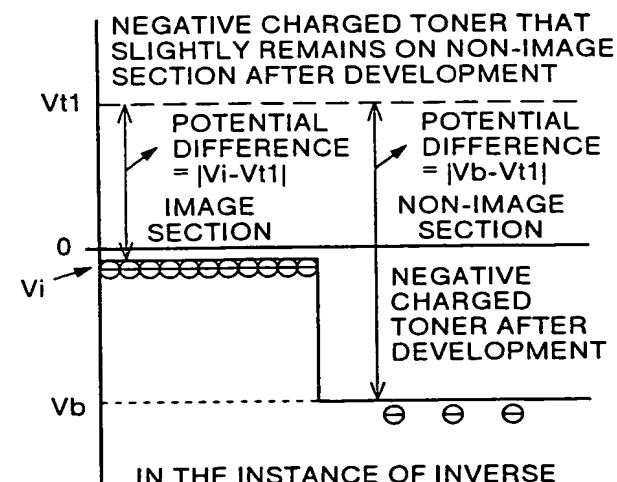


TONER SHIFTS ACCORDING TO TRANSFER PROCESS

IN THE INSTANCE OF NORMAL DEVELOPMENT OF POSITIVE CHARGED TONER WHEN PHOTO SENSOR IS CHARGED IN NEGATIVE

FIG.3D

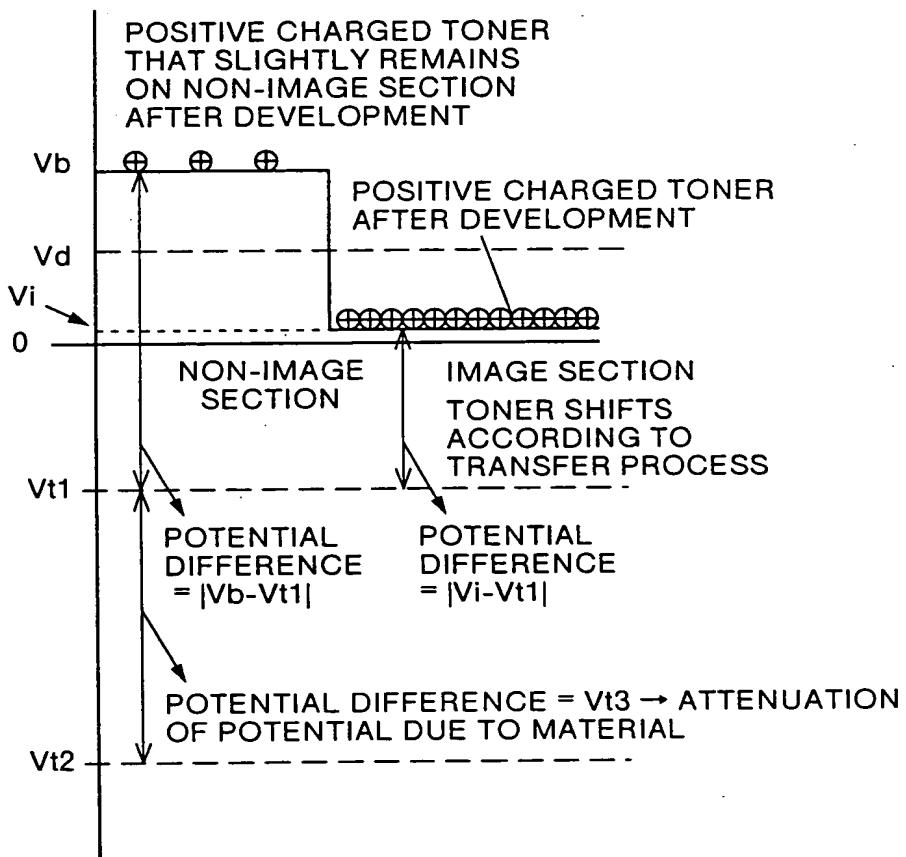
V_b : SURFACE POTENTIAL OF NON-IMAGE SECTION OF PHOTO SENSOR
V_i : SURFACE POTENTIAL OF IMAGE SECTION OF PHOTO SENSOR
V_{t1} : SURFACE POTENTIAL OF INTERMEDIATE TRANSFER UNIT
V_d : DEVELOPING BIAS POTENTIAL



IN THE INSTANCE OF INVERSE DEVELOPMENT OF NEGATIVE CHARGED TONER WHEN PHOTO SENSOR IS CHARGED IN NEGATIVE

FIG.4

V_b : SURFACE POTENTIAL OF NON-IMAGE SECTION OF PHOTO SENSOR
V_i : SURFACE POTENTIAL OF IMAGE SECTION OF PHOTO SENSOR
V_{t1} : SURFACE POTENTIAL OF INTERMEDIATE TRANSFER UNIT
V_d : DEVELOPING BIAS POTENTIAL
V_{t2} : APPLIED VOLTAGE TO INTERMEDIATE TRANSFER UNIT
V_{t3} : VOLTAGE ATTENUATION DUE TO MATERIAL THAT CONSTITUTES
INTERMEDIATE TRANSFER UNIT



4/7

FIG.5

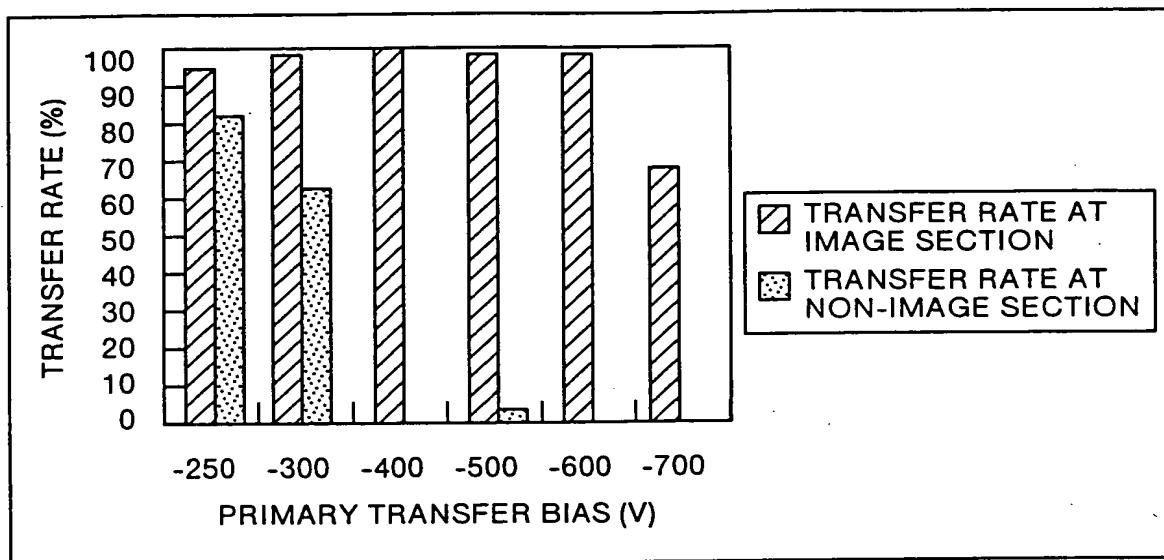
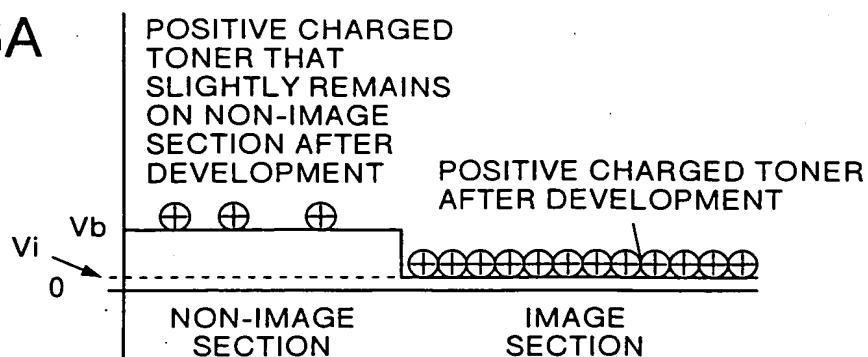


IMAGE SECTION : SATISFACTORY TRANSFER AREA IS
WHERE BIAS IS -600 V OR ABOVE

NON-IMAGE SECTION : STAINED TEXTURE IS NOT TRANSFERRED
IN AREA WHERE BIAS IS -400 V OR BELOW

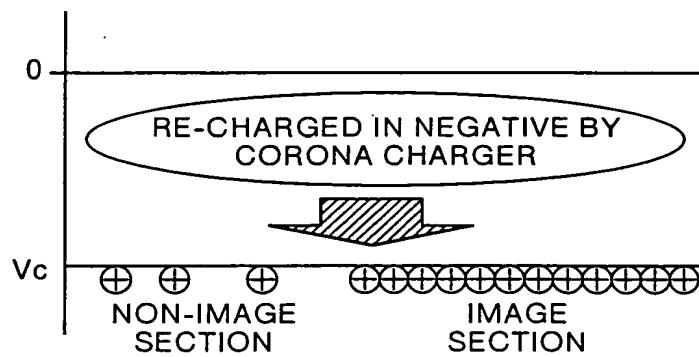
5/7

FIG.6A



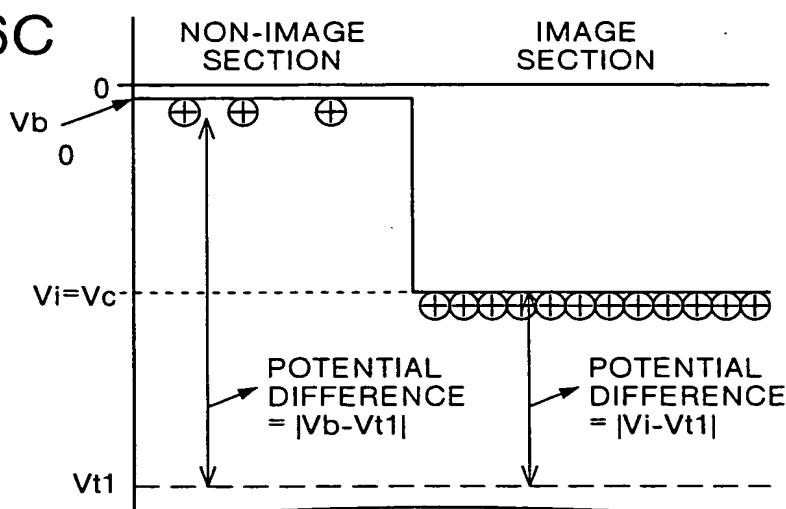
V_b : SURFACE POTENTIAL OF NON-IMAGE SECTION OF PHOTO SENSOR
 V_i : SURFACE POTENTIAL OF IMAGE SECTION OF PHOTO SENSOR
 Vt_1 : SURFACE POTENTIAL OF INTERMEDIATE TRANSFER UNIT

FIG.6B



V_b : SURFACE POTENTIAL OF NON-IMAGE SECTION OF PHOTO SENSOR
 V_i : SURFACE POTENTIAL OF IMAGE SECTION OF PHOTO SENSOR
 Vt_1 : SURFACE POTENTIAL OF INTERMEDIATE TRANSFER UNIT
 V_c : SURFACE POTENTIAL AFTER RE-CHARGING

FIG.6C



ONLY POTENTIAL OF NON-IMAGE SECTION NOT ADHERED WITH TONER FALLS, BY BEAM IRRADIATION FROM ABOVE TONER IMAGE

V_b : SURFACE POTENTIAL OF NON-IMAGE SECTION OF PHOTO SENSOR
 V_i : SURFACE POTENTIAL OF IMAGE SECTION OF PHOTO SENSOR
 Vt_1 : SURFACE POTENTIAL OF INTERMEDIATE TRANSFER UNIT
 V_c : SURFACE POTENTIAL AFTER RE-CHARGING

FIG.7

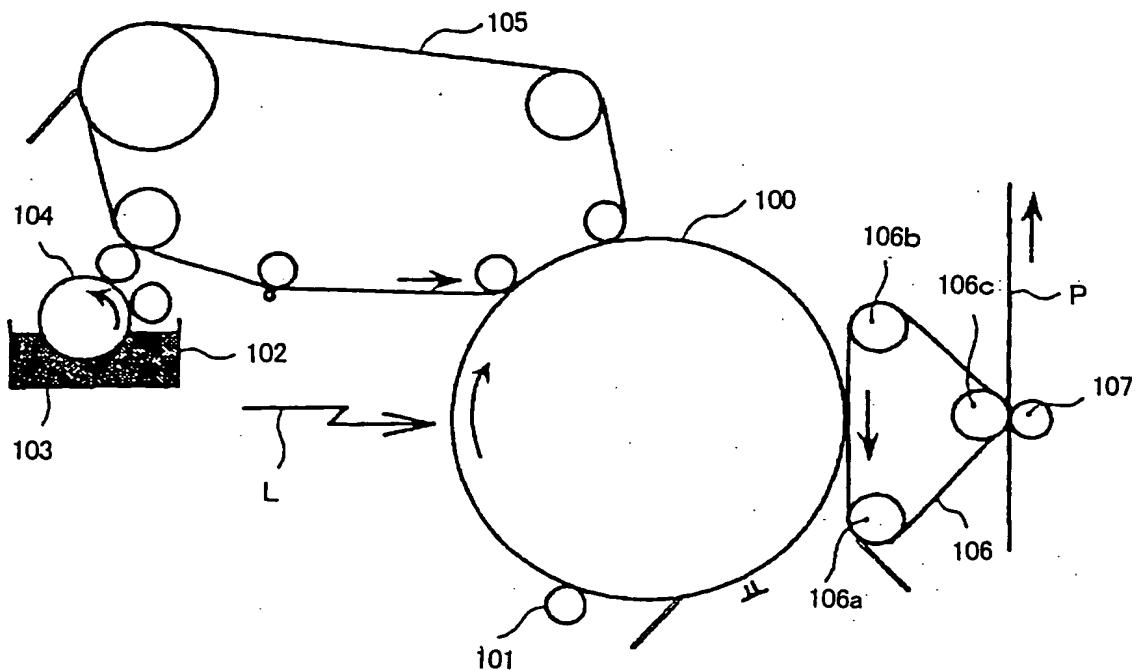
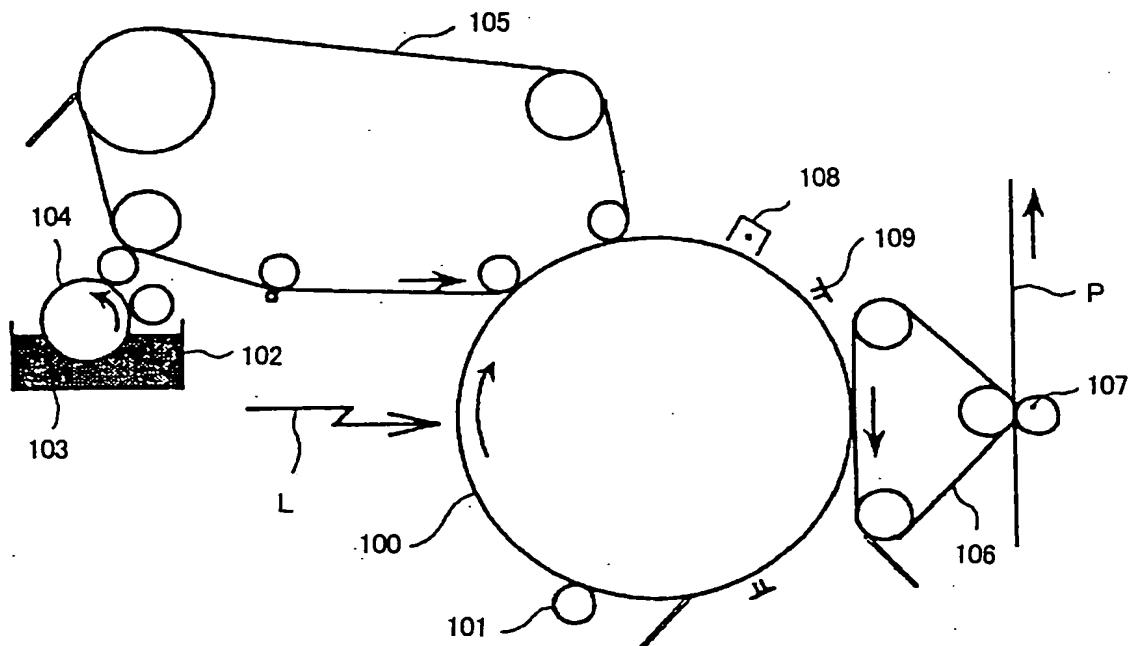


FIG.8



7/7

FIG.9

